Application No.: 10/566,327

Amendment Dated:

June 4, 2009

Reply to Office Action of:

March 4, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

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Listing of Claims:

1. (Previously Presented) A method of driving a plasma display panel, the plasma display panel including discharge cells, each discharge cell formed at an intersection of a scan electrode and a sustain electrode, and a data electrode, the method comprising:

dividing one field period into a plurality of sub-fields, each sub-field having an initializing period, writing period, and sustaining period; and

in the initializing periods of the plurality of sub-fields, performing one of all-cell initializing operation and selective initializing operation, wherein, the all-cell initializing operation causes initializing discharge in all the discharge cells for displaying an image, and the selective initializing operation selectively causes initializing discharge only in the discharge cells subjected to sustaining discharge in the preceding sub-field;

wherein, each of the initializing periods for performing the all-cell initializing operation has an abnormal charge erasing part which causes self-erasing discharge in the discharge cells having excessive wall charge accumulated therein, the abnormal charge erasing part applying a positive rectangular waveform voltage, followed by applying a negative rectangular waveform voltage, to the scan electrodes.

2. (Previously Presented) The method of driving a plasma display panel according to claim 1,

wherein, in the abnormal charge erasing part, a voltage is not applied to the sustain electrode when a rectangular waveform voltage is applied.

3. (Currently Amended) A method of driving a plasma display panel, the plasma display panel including discharge cells, each discharge cell formed at an

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intersection of a scan electrode and a sustain electrode and a data electrode, the method comprising:

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dividing one field period into a plurality of sub-fields, each sub-field having an initializing period, writing period, and sustaining period; and

in the initializing periods of the plurality of sub-fields, performing one of all-cell initializing operation and selective initializing operation, wherein, the all-cell initializing operation causes initializing discharge in all the discharge cells for displaying an image, and the selective initializing operation selectively causes initializing discharge in the discharge cells,

wherein, the initializing period for performing the all-cell initializing operation has a former half part and a latter half part of the initializing period, and an abnormal charge erasing part, in the former half part, application of an ascending ramp waveform voltage to the scan electrodes causes a first initializing discharge using the scan electrodes as anodes and the sustain electrodes and data electrodes as cathodes, in the latter half part, application of a descending ramp waveform voltage to the scan electrodes causes a second initializing discharge using the scan electrodes as the cathodes and the sustain electrodes and data electrodes as the anodes, and in the abnormal charge erasing part, application of applying a positive rectangular waveform voltage, followed by applying a negative rectangular waveform to the scan electrodes causes causing self-erasing discharge in the discharge cells having excessive wall charge accumulated therein; and

wherein the initializing periods for performing the selective initializing operation has an initializing period for applying a descending ramp waveform voltage to the scan electrodes, using the scan electrodes as the cathodes and the sustain electrodes as the anodes.

4. (Previously Presented) The method of driving a plasma display panel according to claim 1, wherein a number of times of all-cell initializing period in the one field period is controlled by determining either the all-cell initializing operation or the selective initializing operation according to an APL.

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5. (Previously Presented) The method of driving a plasma display panel according to claim 2, wherein a number of times of all-cell initializing period in the one field period is controlled by determining either the all-cell initializing operation or the selective initializing operation according to an APL.

- 6. (Previously Presented) The method of driving a plasma display panel according to claim 3, wherein a number of times of all-cell initializing period in the one field period is controlled by determining either the all-cell initializing operation or the selective initializing operation according to an APL.
- 7. (Currently Amended) A method of driving a plasma display panel, the plasma display panel including discharge cells, each discharge cell formed at an intersection of a scan electrode and a sustain electrode, and a data electrode, the method comprising:

dividing one field period into a plurality of sub-fields, each sub-field having an initializing period, writing period, and sustaining period; and

in the initializing periods of the plurality of sub-fields, performing one of all-cell initializing operation and selective initializing operation, wherein the all-cell initializing operation causes initializing discharge in all the discharge cells for displaying an image, and the selective initializing operation selectively causes initializing discharge only in the discharge cells subjected to sustaining discharge in the preceding sub-field;

wherein, the initializing period for performing the all-cell initializing operation has a former half part and a latter half part of the initializing period, and an abnormal charge erasing part, in the former half part, application of an ascending ramp waveform voltage to the scan electrodes causes a first initializing discharge using the scan electrodes as anodes and the sustain electrodes and data electrodes as cathodes, in the latter half part, application of a descending ramp waveform voltage which is ranging from a voltage with the same polarity as the voltage applied during the former half part of initialization period to a voltage reverse in polarity thereto, to the scan electrodes causes a second initializing discharge using the scan electrodes as the cathodes and the sustain electrodes and data electrodes as the anodes, and in the abnormal charge erasing part, application of applying a positive rectangular

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waveform voltage, reverse in polarity to the voltage applied during the first initialization period, followed by supplying it withapplying a negative rectangular waveform voltage reverse in polarity to the scan electrodes; and

wherein a number of times of all-cell initializing period in the one field period is controlled by determining either the all-cell initializing operation or the selective initializing operation according to an APL.

8. (Previously Presented) The method of driving a plasma display panel according to claim 7,

wherein, in the abnormal charge erasing part, a voltage is not applied to the sustain electrode when a rectangular waveform voltage is applied.